

Montana Department of Natural Resources and Conservation  
Water Resources Division  
Water Rights Bureau

**ENVIRONMENTAL ASSESSMENT**  
**For Routine Actions with Limited Environmental Impact**

**Part I. Proposed Action Description**

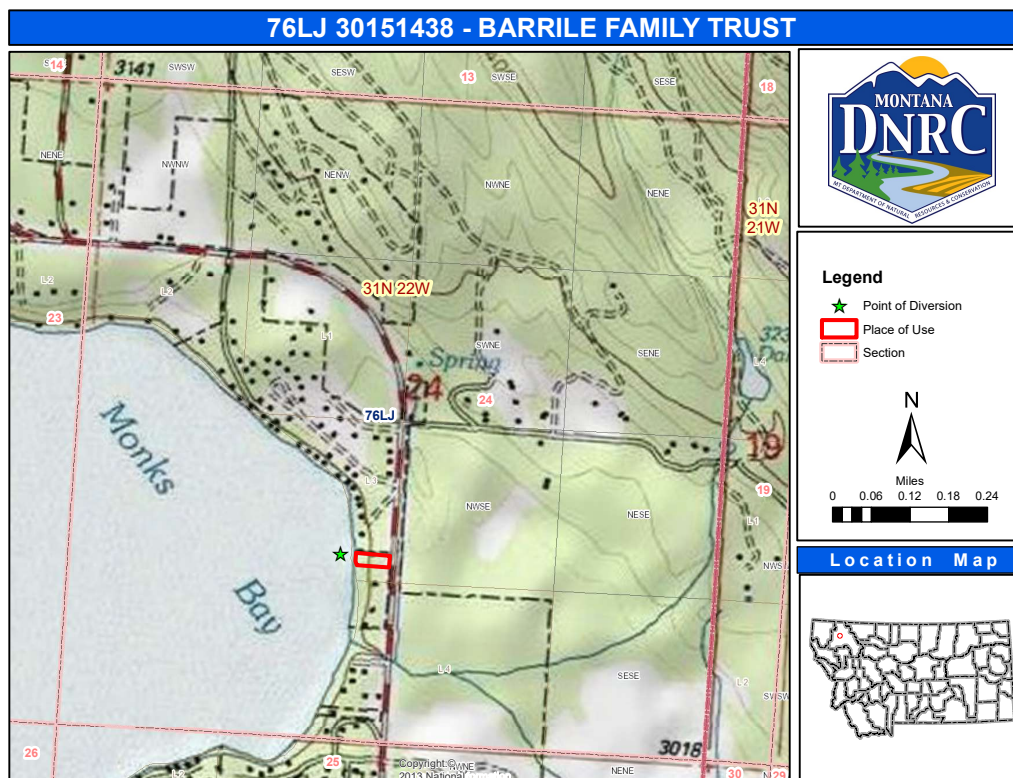
1. **Applicant/Contact name and address:**

Barrile Family Trust  
1472 Barkley Ln  
Whitefish, MT 59937-3342

2. **Type of action:** Surface Water Application for Beneficial Water Use Permit 76LJ 30151438

3. **Water source name:** Whitefish River (Whitefish Lake)

4. **Location affected by project:** Barkley Tracts subdivision Lot 2 and the south 30-feet of Lot 3, Government Lot 3, SENESW Section 24, Township 31N, Range 22W, Flathead County, Montana.



**Figure 1.** Map of the proposed place of use and point of diversion.

**5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:**

Applicant proposes to divert water from the Whitefish River (Whitefish Lake) (hereafter Whitefish Lake) using a pump. Applicant requests a 7.0 GPM flow rate up to an annual volume of 0.41 AF for irrigation of 0.2 acres of lawn and garden. Lawn and garden irrigation will occur from April 15 – October 15. The point of diversion (POD) and place of use is located in the Barkley Tracts subdivision Lot 2 and the south 30-feet of Lot 3, Government Lot 3, SENESW Section 24, Township 31N, Range 22W, Flathead County, Montana (Figure 1). The POD is in the Upper Flathead River Basin (76LJ), in an area not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

**6. Agencies consulted during preparation of the Environmental Assessment:**

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (MTDFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MTDEQ): Clean Water Act Information Center
- U.S. Natural Resources Conservation Service (NRCS): Web Soil Survey

**Part II. Environmental Review**

**1. Environmental Impact Checklist:**

<p><b>PHYSICAL ENVIRONMENT</b></p>
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**WATER QUANTITY, QUALITY AND DISTRIBUTION**

**Water quantity** - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

The Applicant will divert water from Whitefish Lake, which is not on the MTDFWP list of chronically or periodically dewatered streams.

*Determination:* No significant impact.

**Water quality** - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

According to the MTDEQ 2020 Clean Water Act Information Center Water Quality Information, Whitefish Lake is listed as “fully supporting” for: primary contact recreation, agriculture, and aquatic life. The aquatic life use is “threatened,” with the probable causes being mercury and polychlorinated biphenyls. Whitefish lake has not been assessed for the drinking water beneficial use. The lake’s Use Class is “A-1,” meaning the waters are classified as suitable for drinking, culinary, and food processing purposes after conventional treatment for removal of naturally present impurities. The Water Quality Category is “5,” meaning the lake’s waters have one or more beneficial use impaired or threatened, and a total maximum daily load (TMDL) plan is required to address the factors causing the impairment or threat. The proposed project will not affect water quality of Whitefish Lake.

*Determination:* No significant impact.

**Groundwater** - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

*Determination:* N/A, this project diverts from a surface water source.

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Applicant will divert water from Whitefish Lake at a maximum rate of 7.0 GPM. The diversion will use a Goulds 7GS05R 0.5-HP submersible pump controlled by a variable frequency drive (VFD) and a Hunter Pro-C multi-zone irrigation control system. The pump will include a check-valve and will be located within a plastic flow sleeve approximately 10-feet below the low-water level near the lake floor. A 1.25-inch high density polyethylene (HDPE) supply line will transmit water 220-feet from the pump to the irrigation control valve distribution box on the property. From the valve box, 1.0-inch HDPE lines will distribute water to the irrigation zones. The VFD will ensure a constant system operating pressure of approximately 40 pounds per square inch (psi) at the distribution box and approximately 39-psi at the emitters.

The total dynamic head (TDH) of the system at the zone with the maximum flow requirement (zone 2) is 104-feet, based on:

- i. The constant system operating pressure of 40-psi (equivalent to 92-feet of head);
- ii. The 9-foot elevation gain from Whitefish Lake’s surface to the valve distribution box; and,
- iii. The friction losses in the 220-foot length of 1.25-inch HDPE supply line and 184-foot length of 1.0-inch distribution line (zone 2) at 7.0 GPM (equivalent to 3-feet of head).

The 0.2 acres of lawn and garden area are irrigated in four (4) zones. The zones will be operated one at a time as needed to meet irrigation demands. Zones 1, 2, and 3 will each contain 12 Hunter Rotator MP1000-90 and -360 nozzle sprinklers (90- and 360-degree coverage, respectively). Zones 1 and 2 will additionally contain seven (7) and three (3) HEB-6.0 point-source drip emitters, respectively. Zone 4 will consist of 340-feet of 1.0-inch HDPE line with 44 HEB-6.0 point-source drip emitters connected to 0.25-inch flex polyethylene tubing. Pump

output is variable and will depend upon the demand of the particular zone in operation at any given time. Depending on the degree of coverage, the rotator sprinklers output between 0.21 and 0.84 GPM per emitter at 39-psi. The point-source drip emitters each output approximately 0.1 GPM. Zone 2 represents the zone of greatest flow demand, where the combined output of the 90- and 360-degree coverage sprinklers and point-source drip emitters equals the requested flow rate of 7.0 GPM.

The pump is capable of producing 7.0 GPM at 104-feet TDH based on the applicant-provided system specifications. This flow rate will allow the Applicants to supply the landscaping irrigation system at adequate operating pressures. The Department finds the system capable of producing and distributing the requested flow rate of 7.0 GPM and annual volume of 0.41 AF.

This project will not create any channel impacts, flow modifications, barriers, dams, or riparian impacts to Whitefish Lake, nor will it affect any wells.

*Determination:* No significant impact.

#### **UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern,” or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any “species of special concern” in Township 31N, Range 22W that could be impacted by the proposed project. 14 animal and 11 plant species of concern (Tables 1 and 2, respectively) were identified within the township and range where the project is located. Of these species, the Grizzly Bear (*Ursus arctos*), Canada Lynx (*Lynx canadensis*), and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. An adequate quantity of water will still exist in the surface water source to maintain existing populations of Bull Trout, should they exist there currently. This area is already highly developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

<b>Table 1: Animal Species of Concern</b>				
Wolverine ( <i>Gulo gulo</i> )	Hoary Bat ( <i>Lasiurus cinereus</i> )	Canada Lynx ( <i>Lynx canadensis</i> )	Little Brown Myotis ( <i>Myotis lucifugus</i> )	Fisher ( <i>Pekania pennanti</i> )
Grizzly Bear ( <i>Ursus arctos</i> )	Pileated Woodpecker ( <i>Dryocopus pileatus</i> )	Common Loon ( <i>Gavia immer</i> )	Northern Alligator Lizard ( <i>Elgaria coerulea</i> )	Westslope Cutthroat Trout ( <i>Oncorhynchus clarkii lewisi</i> )
Pygmy Whitefish ( <i>Prosopium coulteri</i> )	Bull Trout ( <i>Salvelinus confluentus</i> )	Sheathed Slug ( <i>Zacoleus idahoensis</i> )	Yuma Myotis ( <i>Myotis yumanensis</i> )	

<b>Table 2: Plant Species of Concern</b>				
Crested Shieldfern ( <i>Dryopteris cristata</i> )	Beck Water-marigold ( <i>Bidens beckii</i> )	Coville Indian Paintbrush ( <i>Castilleja covilleana</i> )	Kalm's Lobelia ( <i>Lobelia kalmii</i> )	Nagoonberry ( <i>Rubus arcticus</i> )
Creeping Sedge ( <i>Carex chordorrhiza</i> )	Panic Grass ( <i>Dichanthelium acuminatum</i> )	Giant Helleborine ( <i>Epipactis gigantea</i> )	Slender Cottongrass ( <i>Eriophorum gracile</i> )	Dense-flower Rein Orchid ( <i>Piperia elongate</i> )
Gray Lungwort Lichen ( <i>Lobaria hallii</i> )				

*Determination:* No significant impact.

**Wetlands** - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

*Determination:* N/A, project does not involve wetlands or critical riparian habitats.

**Ponds** - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

*Determination:* N/A, project does not involve ponds.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

The proposed 0.2 acres of lawn and garden irrigation will not have a negative impact on the soil quality, stability, or moisture content. The soils in the project area are Radnor silt loam, 0 to 3 percent slopes, formed from Glaciolacustrine deposits parent material. Radnor silt loam, 0 to 3 percent slopes, has moderately low to moderately high capacity to transmit water. Soils in this area are not likely susceptible to saline seep.

*Determination:* No significant impact.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

This area is already developed, and any existing native vegetation has already been disturbed. It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

*Determination:* No significant impact.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of surface water.

*Determination:* No significant impact.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

*Determination:* N/A, project not located on State or Federal Lands.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified. No further impacts are anticipated.

*Determination:* No significant impact.

## **HUMAN ENVIRONMENT**

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

*Determination:* No significant impact.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

*Determination:* No significant impact.

**HUMAN HEALTH** - *Assess whether the proposed project impacts human health.*

This proposed use will not adversely impact human health.

*Determination:* No significant impact.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*

Yes\_\_\_ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

*Determination:* No impact.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

- (a) Cultural uniqueness and diversity? None identified.
- (b) Local and state tax base and tax revenues? None identified.
- (c) Existing land uses? None identified.
- (d) Quantity and distribution of employment? None identified.
- (e) Distribution and density of population and housing? None identified.
- (f) Demands for government services? None identified.
- (g) Industrial and commercial activity? None identified.
- (h) Utilities? None identified.
- (i) Transportation? None identified.
- (j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

**3. *Describe any mitigation/stipulation measures:***

None.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of water from Whitefish Lake.

**Part III. Conclusion**

**1. *Preferred Alternative***

Issue a water use permit if the Applicants prove the criteria in 85-2-311 MCA are met.

**2. *Comments and Responses***

None.

**3. *Finding:***

Yes \_\_\_ No X Based on the significance criteria evaluated in this EA, is an EIS required?

*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:*

No significant impacts related to the proposed project have been identified.

*Name of person(s) responsible for preparation of EA:*

*Name:* Travis Wilson

*Title:* Water Resource Specialist

*Date:* February 25, 2021